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2019年度大阪大学未来基金【住野勇財団】学部学生による自主研究奨励事業研究成果報告書

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研究課題名	Education attainment and perceptions of autism: A cross-cultural study in South Asian countries				
研究成果の概要	研究目的、研究計画、研究方法、研究経過、研究成果等について記述すること。必要に応じて用紙を追加してもよい。（先行する研究を引用する場合は、「阪大生のためのアカデミックライティング入門」に従い、盗作剽窃にならないように引用部分を明示し文末に参考文献リストをつけること。）				

I. Overview**1. Abstract**

Given the prevalence of ASD on the global scale (WHO, 2018; Elsabbagh et al, 2012), this research project aims to test the hypothesis suggested by previous studies that there is a positive correlation between higher educational level, and level of knowledge and acceptance of mental disorder (Angermeyer and Dietrich, 2005; Lauber et al, 2000). Data from two cities, Dehradun (northern India) and Hanoi (northern Vietnam) were then collected and verified to see whether they support results of Western-based literature in the case of education and perception of autism. The final results seem to have proven otherwise: there were no positive correlated relationships among college-aged respondents from both cities.

2. Method

Two surveys were designed to collect data from Dehradun and Hanoi. The survey questions and statements are customized based on statistics and specific characteristics of autistic individuals in these two cities taken from existing academic research. Both surveys were structured in three parts. In part A “Personal information”, participants were asked to provide some basic information regarding their backgrounds as a basis to examine their current understandings of ASDs. The second part - part B “General knowledge on Autism Spectrum Disorders” was comprised of 15 statements that tested participants’ knowledge of ASDs. A wide range of aspects is put into the test, ranging from the number of children and adults diagnosed with ASDs, some common symptoms of ASDs, to the general public perceptions. Two 5-point Likert scales are also included to score participants’ performance. Lastly, part C “Personal Perception” (‘How much do you agree with these statements?’) examined the level of positivity in terms of perception toward people with autism, using 15 statements and a 5-point Likert scales to measure positive and negative statements. People are asked to see whether they are willing to have direct contact with autism people (i.e. sharing the same environment with autism people) and if they believe in equal treatment and more social support for these individuals. For true statements, ‘disagree’ worth 0 points, ‘somewhat disagree’=1, ‘undecided’=0, ‘somewhat agree’=3, ‘agree’=4. For false

statements, the scoring was opposite: ‘agree’=0, ‘somewhat agree’=1, ‘undecided’=0, ‘somewhat disagree’=3, ‘disagree’=4.

II. Geographic and demographics

1. Dehradun

Dehradun is a district in North India and the capital of Uttarakhand. Like most parts of India, Dehradun has experienced exponential growth in its level of industrialization, urbanization, and overall socio-economic development in many different aspects. In terms of education, Dehradun is known as “an important educational hub of India with a large number of leading public schools and colleges in both government and private sectors with over 1.7 lakh students enrolled” (Kandpal, 2019). Some of the most prestigious education institutions are The Doon School, DIT University, Graphic Era University. As such, the

DEMOGRAPHIC CHARACTERISTICS OF SURVEYED STUDENTS IN DEHRADUN

	n	Percentage
GENDER		
FEMALE	13	31.71%
MALE	11	26.83%
MISSING	17	41.46%
AGE		
18	3	13.13%
19	5	15%
20	20	25%
21	6	16.88%
22	1	14.38%
23	2	15.63%
MISSING	0	
RELIGION		
BUDDHISM	1	2.44%
HINDUISM	34	82.93%
ISLAM	1	2.44%
SIKH	2	4.88%
MISSING	3	7.32%
TOTAL	41	

average literacy rate in Dehradun is over 84%, higher compared to the national average of 74% (Kandpal, 2019). In terms of attitude toward psycho-social disabilities (PPSD), including ASD. There was an increase in the level of social distance among North Indians, meaning that there were more people believed that individuals with PPSDs were dangerous, thus kept distant from interacting with PPSD individuals or even resulted in discriminatory attitudes. The term itself refers to “people who have received a diagnosis of a mental health condition and experienced related negative social effects including prejudice, discrimination and exclusion” (Drew et al., 2011). Not only there has been a gap in mental health services and treatments for PPSD in India, even when these sources are accessible, individuals with PPSD, including Autism Spectrum Disorder, are disincentivized from accessing them due to internalized stigma and fear of discrimination (Lahariya et al., 2010; Shidhaye and Kermode, 2013, Whiteford et al., 2013). India is also criticized for having a severe lack of implementation and regulation of law and policies in terms of mental healthcare services. The situation is similar in Dehradun district, Uttarakhand, where the research took place, with individuals at best can seek help from some levels of residential institutional care but not official government services (Marthias et al., 2018). People with low education, unemployment, and middle or low socio-economic status experienced two to four times higher risks of psychosocial disability.

2. Hanoi

Locating in northern Vietnam's Red River delta, Hanoi, with a population of about 6.5 million people (GSO, 2012), is becoming "one of the fastest-growing cities in the world up to 2025". In Vietnam, similarly to some other countries in Asia, having disabilities is considered to be a "punishment for the sins of previous generations", or a result of karma, which lead to "shame for the whole family" (Liu, 2005; Luong et al., 2009). This common negative perception toward people with disabilities and PPSD, including ASD, stems from a mixture of long-

DEMOGRAPHIC CHARACTERISTICS OF SURVEYED UNIVERSITY STUDENTS IN HANOI

	n	Percentage
GENDER		
FEMALE	21	56.76%
MALE	16	43.24%
MISSING	0	
AGE		
18	1	11.88%
19	9	17.50%
20	8	17.50%
21	12	20.63%
22	4	16.25%
23	2	15.63%
MISSING	1	0.63%
RELIGION		
NO	33	89.19%
YES	3	8.11%
MISSING	1	2.70%
TOTAL	37	

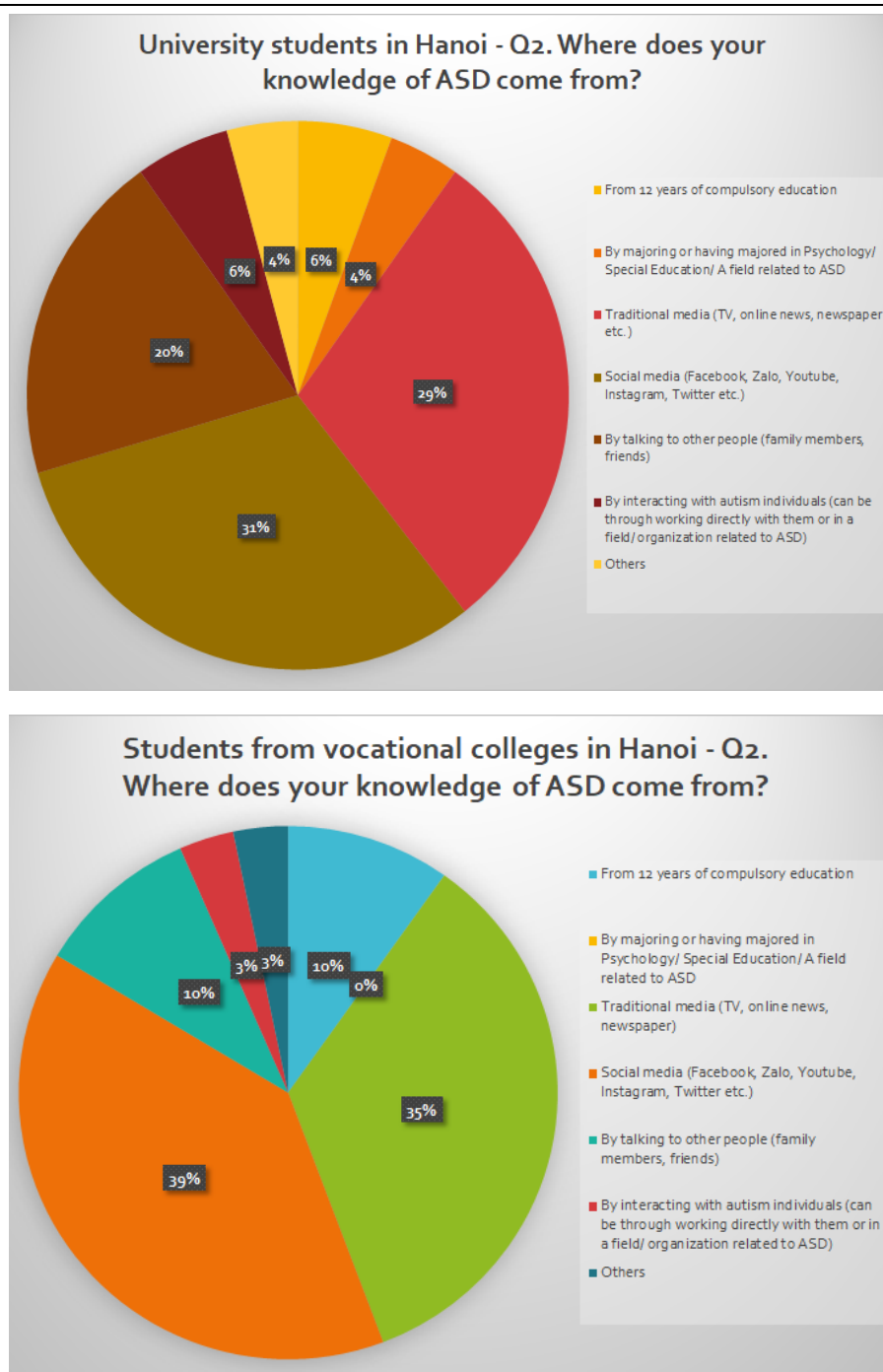
rooted, traditionally derived principles of Confucianism, Taoism, and Buddhism. As such, disability is perceived as one of the consequences of karmic demerit, sins or immorality, resulting in prejudices toward disabled and mentally ill people (Gammeltoft, 2008a; Hunt, 2005). ASD has been recognized in Vietnam since the late 1990s (Giang, 2012; Minh, 2011; Ying et al., 2012). And since the late 2000s, the number of children diagnosed with ASDs in Vietnam has increased dramatically (CLAN, 2012; Giang, 2012). This

number has been continually rising each year, from 450 in 2008, to 1792 in 2012 (Minh, 2011). According to Vu, there has been this pervasive attitude among people that individuals with ASD are worthless and burdensome for their family and society (Vu, 2014). In one ethnographic study, some parents when being interviewed recalled that they were advised by service providers to "have another child" because their child with ASD would not become a person, or "good for nothing" (*có cũng như không*) (Gammeltoft, 2008a). In terms of mental health literacy: there have been virtually no studies done on the topic of mental health literacy of ASD particularly among college-aged students in Hanoi so far, except for that of depression (Nguyen and Nguyen, 2018). A percentage of young Hanoian undergraduate students who correctly detected depression (32%) is comparatively lower than their peers in developed countries, however still higher than those in some other developing countries. Regardless of correct identification, the majority of students were willing to help people with depression (84%), which indicates an open-minded attitude in the younger more educated generation.

III. Results and discussion

1. Results

In terms of samples, students from a wide range of different universities and colleges were surveyed. In Hanoi, 37 were from higher education institutions and 40 were from vocational colleges. The sample in Dehradun however, as will be discussed later, was not completed due to circumstantial reasons during the process of conducting the research. The researcher was not able to reach college-aged students from vocational schools, hence only 41 university students were recruited and surveyed. Regardless of certain errors and failures, the research managed to gather the information that was valuable enough to make comparisons and analysis.

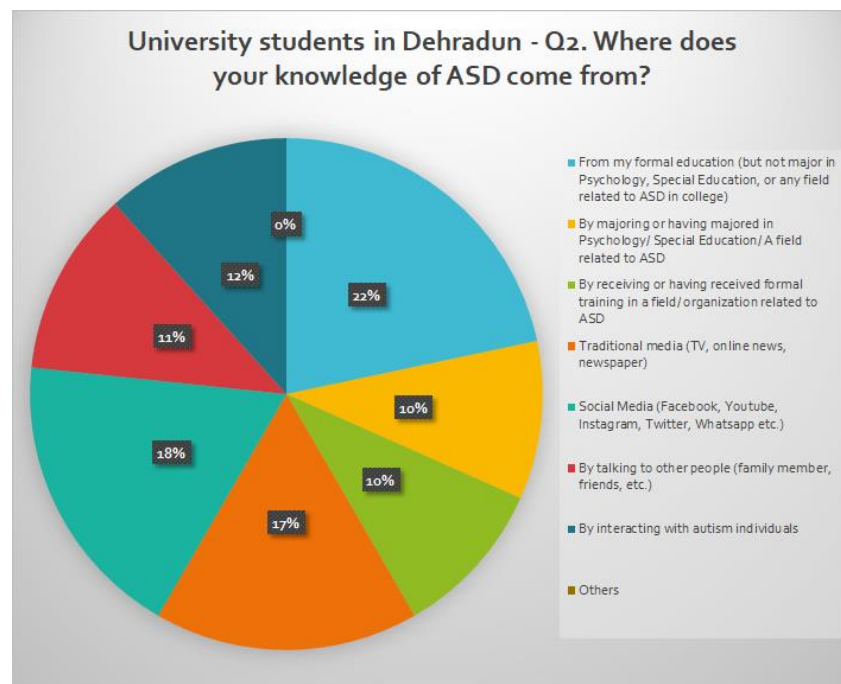


In the first section of the survey, students from Hanoi were asked about their sources of ASD knowledge. Surprisingly, most students were reported to have obtained their knowledge of ASD from media, particularly social networking sites such as Facebook or Zalo (a communication app in Vietnam), with 31% of university students and 39% of their peers from vocational colleges. This can be partially explained by the rise in the usage of social media in Vietnam recently. With the development of Web 2.0, social media has become a powerful tool that has increased the accessibility of Vietnamese people to a broad range of topics, information, as well as their political participation (Nguyen D.T., 2014). According to Global Attitude Survey in 2017 administered by Pew Research Center, Vietnam is the fourth-highest daily use of social media sites for news, and 81% of respondents who were from 18 to 29 years old cited social media as their sources of information¹. Not only Vietnamese

¹ The report uses data from a survey titled “Global Attitude Survey 2017”, which investigated how people from 38 countries follow and perceive news

students but several studies have shown that social media is used by college-aged students around the world to serve a number of purposes, ranging from searching for materials to conduct academic research (Head, 2008; Lim, 2009), to obtaining news and pieces of information in a casual manner (Head, 2011; Kim et al., 2014).

On the other hand, only 6% of university students and 3% of vocational college students learned or knew about ASD through their 12-year compulsory knowledge. From this observation, it can be speculated that compulsory education in Vietnam is either lacking in providing sufficient knowledge on ASD in general, or the materials are outdated or not engaging enough for students to remember what they have learned, which prompts the need for a reformation of education with regards to knowledge of ASD and other mental disorders. Additionally, only a few of the students from both groups have gained their knowledge from actual interactions with autism individuals, either through working directly with them or having had jobs related to ASD.



In comparison with Vietnamese students, university students from Dehradun obtained their knowledge of ASD less from social media and rather from different channels, with the highest percentage of students (22%) knew about ASD through their formal education. Although it seems that mass media and social networking sites did contribute significantly to the students' understanding of ASD, the percentage of students whose knowledge came from interacting with autism individuals (12%) and from receiving or having received training in fields/ organizations related to ASD (10%) was also higher than that of those came from Hanoi, with only 6% of university students and 3% of vocational college students obtained their knowledge through these two sources of information. This indicates that students from Dehradun might have had more opportunity to interact with ASD individuals (i.e. through volunteer work at centers for ASD) that students from Hanoi do not have. More variables, thus, should be taken into consideration and examined to explain this difference between the two groups. Nevertheless, actual interaction plays a fundamental role in one's understanding of ASD, as research has been

indicating that individuals with more autism exposure tend to demonstrate more knowledge of the disorders (Stronach et al., 2018).

Table 1. The compared average score of university students and students from vocational schools in part B (General Knowledge of ASD)

AVERAGE SCORE OF PART B (OUT OF 4)											
QUESTION	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	TOTAL
UNIVERSITY STUDENTS	1.4	2.2	3.3	3.2	1.9	0.8	2.6	1.6	1.7	2.3	21
STUDENTS FROM VOCATIONAL COLLEGES	2	2.6	2.1	2.8	2.1	0.2	1.7	1.3	1.3	2.2	18.3

Table 2. The compared average score of university students and students from vocational schools in part C (Personal Opinion)

AVERAGE SCORE OF PART C (OUT OF 4)											
QUESTION	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	TOTAL
UNIVERSITY STUDENTS	2.8	2.6	2.6	2.5	3.2	2.2	2.5	2.1	3.2	2.8	26.5
STUDENTS FROM VOCATIONAL COLLEGES	2.4	2.5	2.7	2.5	3.2	2.1	3.1	2.4	3.2	2.9	27

Among the groups from Hanoi, university students did slightly better with 21 points compared to students from vocational colleges with 18.3 points in terms of part B (general knowledge and understanding about ASD). This might indicate a positive however insignificant correlation between educational attainment and levels of ASD knowledge, in which those who are more educated would have a better understanding on ASD.

However, although university students were reported to have provided more correct answers and thus reflected better knowledge of ASD, this result did not translate into a more open attitude toward ASD or individuals with ASD compared to those from vocational colleges. The total score of university students in this section was even marginally lower compared to that of vocational college students, with the former being 26.5 points and the latter being 27 points.

Table 3. The average score of part B - university students from Dehradun

STUDENTS FROM DEHRADUN - AVERAGE SCORE OF PART B (OUT OF 4)											
QUESTION	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	TOTAL
UNIVERSITY STUDENTS	1.4	2.6	2.4	2.0	2.2	1.7	2.7	2.5	1.5	2.6	21.6

Table 4. The average score of part C - university students from Dehradun

STUDENTS FROM DEHRADUN - AVERAGE SCORE OF PART C (OUT OF 4)											
QUESTION	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	TOTAL
UNIVERSITY STUDENTS	3.5	3.7	3.4	3.5	3.5	3.4	3.5	3.5	3.5	3.3	34.8

On the other hand, in terms of the comparison between university students from Hanoi and Dehradun, there was no difference between the average scores of both groups, with students from Dehradun scored 21.6 points regarding their general knowledge of ASD as shown in table 3. However, what is worth-noticing here is the average scores on part C: students from Dehradun had a significantly higher score, with 34.8 points as indicated in table 4, than their peers in Hanoi with 26.5 points. Overall, this seems to have proven the hypothesis to be wrong, and that there has been no correlation between knowledge and perception of ASD as indicated by the data.

2. Discussion

Firstly, in terms of errors and failures during the process of gathering information, as mentioned earlier, due to the lack of social and cultural capital, the research was not able to survey students from vocational schools and colleges that were not higher education institutions in Dehradun. Even though a survey was designed particularly in the Hindi language to serve the purpose of surveying this group of students, the researcher failed to find enough respondents to fill in the survey. This has resulted in an incomplete data analysis and thus the researcher could not fully make a comprehensive cross-cultural comparison between two groups from Dehradun and Hanoi.

Secondly, there were some factors that negatively affected with the quality of data. Many respondents, especially those from the Dehradun pool, skipped answering and did not complete the survey. As the surveying process was mostly conducted online, local helpers in Dehradun spread the survey to those from universities that were outside of Dehradun, resulting in a mixed pool of responses and thus it costed some time for the research to filter out unqualified ones. Regarding the sample pools from Hanoi, the one that surveyed vocational college students was male-only sample, meaning that the pool was not diverse and inclusive. More female respondents from vocational colleges should have included in the survey to see if gender could be one of the variables that affected the average score in terms of personal perception.

Last but not least, the questions of part B were taken from results of research conducted in largely the U.S and some Western countries, meaning that they might not universally applicable and thus can be changeable in different contexts due to different human and environmental factors. For example, question 13 that stated “environmental factors (the living conditions of one’s family or having exposed to toxic materials during pregnancy) DO NOT trigger the development of autism” were created based on a research conducted in the state of Tamil Nadu in southern India (Geetha et al., 2018), which might not necessarily applicable to northern states such as Dehradun with different sociodemographic and environmental characteristics. In other words, the questions in part B might not be valid in the first place, or at least not all of them were valid.

In summary, there were not enough data to validate the initial hypothesis. Nevertheless, it seems so far that educational attainment of students did not correlate with the way they perceived ASD or their attitudes toward ASD individuals. In terms of attempted comparison, Indian students from Dehradun were more exposed to ASD and reported to have more positive perception of ASD, however, they did not score higher than their counterparts

from Hanoi, Vietnam. Between the two groups of university students and students from vocational colleges, there was no significant difference with regards to their general knowledge and perception of ASD. Overall, more variables should be included in the process of conducting research in order to produce a more nuanced analysis regarding future research on this topic.

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